

# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: HALTOM DENTAL Building Permit #: \_\_\_\_\_ City Drainage #: \_\_\_\_\_  
 DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
 Legal Description: LOT 2A LANDS OF BRYANT AND WITAKER  
 City Address: 10433 LAGRIMA DEL ORO NE

**Engineering Firm:** RIO GRANDE ENGINEERING Contact: DAVID SOULE  
 Address: PO BOX 93924, ALBUQUERQUE, NM 87199  
 Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

**Owner:** TUCKER HALTOM PROFIT SHARE PLAN Contact: \_\_\_\_\_  
 Address: 10433 LAGRIMA DEL OROST NE 87111  
 Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Architect:** JOE SLAGLE Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Surveyor:** CONSTRUCTION SURVEY INCORPORATED Contact: JOHN GALLEGOS  
 Address: \_\_\_\_\_  
 Phone#: 917.8921 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

**Contractor:** \_\_\_\_\_ Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- DRAINAGE REPORT
- DRAINAGE PLAN 1st SUBMITTAL
- DRAINAGE PLAN RESUBMITTAL
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- ENGINEER'S CERT (HYDROLOGY)
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- ENGINEER'S CERT (TCL)
- ENGINEER'S CERT (DRB SITE PLAN)
- ENGINEER'S CERT (ESC)
- SO-19
- OTHER (SPECIFY)

### CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- SIA/FINANCIAL GUARANTEE RELEASE
- PRELIMINARY PLAT APPROVAL
- S. DEV. PLAN FOR SUB'D APPROVAL
- S. DEV. FOR BLDG. PERMIT APPROVAL
- SECTOR PLAN APPROVAL
- FINAL PLAT APPROVAL
- CERTIFICATE OF OCCUPANCY (PERM)
- CERTIFICATE OF OCCUPANCY (TCL TEMP)
- FOUNDATION PERMIT APPROVAL
- BUILDING PERMIT APPROVAL
- GRADING PERMIT APPROVAL  SO-19 APPROVAL
- PAVING PERMIT APPROVAL  ESC PERMIT APPROVAL
- WORK ORDER APPROVAL  ESC CERT. ACCEPTANCE
- GRADING CERTIFICATION  OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes  No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: 7/1/15 By: \_\_\_\_\_

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

RIO GRANDE ENGINEERING OF NEW MEXICO, LLC

July 1, 2015

Hydrology Section  
, Planning Department  
Development Review  
City of Albuquerque

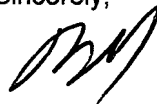
**RE: Grading and Drainage Plan  
Haltom Dental**

Dear Sir or Madam:

The purpose of this letter is to accompany the initial drainage submittal. The plan has been designed in conformance the adjacent properties drainage plans. The drainage plan allows for free discharge with first flush improvements. The site is divided into 2 basins, the north basin enters a retention pond that retains 423 cubic feet of the 606 cubic feet generated. The pond spills to a bioswale located along the sites western boundary. The southern basin enters this same bioswale via a series of 1' curb cuts. The total site generates .73 cfs which is an increase of .35 cfs from existing. The first flush volume retained is 438 cubic feet which exceed the 137 cubic feet required. Each curb opening has the capacity to convey 1.04 cfs and the swale can convey 1.06 cfs. The onsite improvements have been sized to safely pass the 100-year flow and retain in excess the first flush volume. The parking lot will be used as additional parking for the existing office to the east.

Should you have any questions regarding this submittal, please do not hesitate to call me.

Sincerely,



David Soule, PE  
Rio Grande Engineering  
PO Box 93924  
Albuquerque, New Mexico 87199

# Weighted E Method

## LAGRIMA DEL ORO

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year, 6-hr.		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
UPLAND	0	0.000	60%	0	20.0%	0.000	20.0%	0	0%	0.000	0.000	0.000	0.00
OVERALL EXISING	6810	0.156	70%	0.10944	30.0%	0.047	0.0%	0	0%	0.000	0.884	0.012	0.38
BASIN N	3480	0.080	0%	0	20.0%	0.016	20.0%	0.01598	60%	0.048	2.092	0.014	0.36
BASIN S	3330	0.076	0%	0	8.0%	0.006	12.0%	0.00917	80%	0.061	2.374	0.015	0.37
PROPOSED	6810	0.156	0%	0	14.1%	0.022	16.1%	0.02515	70%	0.109	2.230	0.029	0.73
COMPARISION		0.000		-0.109		-0.025		0.025		0.109		0.018	0.35

### Equations:

$$\text{Weighted E} = \text{Ea} \cdot \text{Aa} + \text{Eb} \cdot \text{Ab} + \text{Ec} \cdot \text{Ac} + \text{Ed} \cdot \text{Ad} / (\text{Total Area})$$

$$\text{Volume} = \text{Weighted D} \cdot \text{Total Area}$$

$$\text{Flow} = \text{Qa} \cdot \text{Aa} + \text{Qb} \cdot \text{Ab} + \text{Qc} \cdot \text{Ac} + \text{Qd} \cdot \text{Ad}$$

Where for 100-year, 6-hour storm (zone 4)

Ea= 0.8	Qa= 2.2
Eb= 1.08	Qb= 2.92
Ec= 1.46	Qc= 3.73
Ed= 2.64	Qd= 5.25

CURB OPENING CAPACITY

$$Q = \text{CLH}^{1.5} = 2.95 \times 1 \times 5^{1.5} = 1.04 \text{ CFS}$$

CONTRIBUTING TO POND

0.36 CFS  
606.68 CUBIC FEET

Pond volume required

FIRST FLUSH REQUIRED 134.64 cf  
FIRST FLUSH PROVIDED 438.00 cf

EXISTING ONSITE DISCHARGE 0.38 CFS  
PROPOSED ONSITE GENERATED 0.73 CFS  
UPLAND 0.00 CFS

### NARRATIVE

THIS SITE IS AN INFILL DEVELOPMENT NEAR THE BOTTOM OF THE BEAR CANYON WATER SHED. THIS SITE IS ADJACENT TO FREE DISCHARGING PROPERTIES WE ARE PROPOSING TO RETAIN THE NORTHERN BASINS FOR WATER QUALITY AND TO REDUCE FLOW TO LESS THAN HISTORICAL. THE PARKING LOT WILL PASS OVER WATER QUALITY SWALE BEFORE LEAVING SITE. THE PROPOSED INLET WILL BE CONSTRUCTED WITH THE SO19 PERMIT PROCESS

## Channel Capacity

	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft <sup>2</sup> )	(ft)		(%)	(cfs)	(cfs)	(ft/s)
Beginning	3	1.5	0.5	1.13	3.30	0.3406226	0.15	1.06	0.74	0.66

### Manning's Equation:

$$Q = 1.49/n * A * R^{(2/3)} * S^{(1/2)}$$

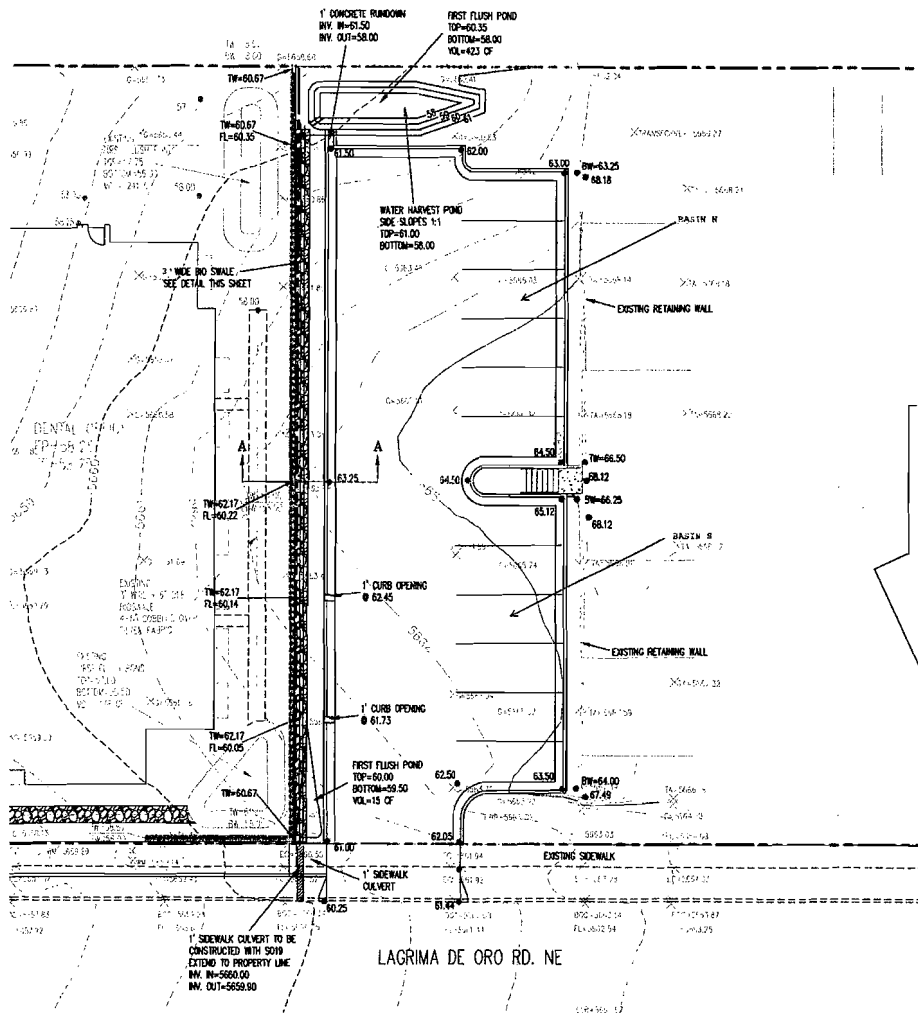
A = Area

R = D/4

S = Slope

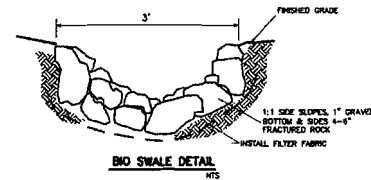
n = 0.03

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**EROSION CONTROL NOTES:**

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

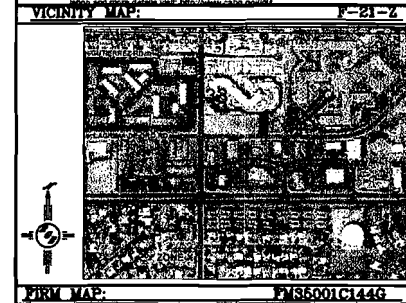
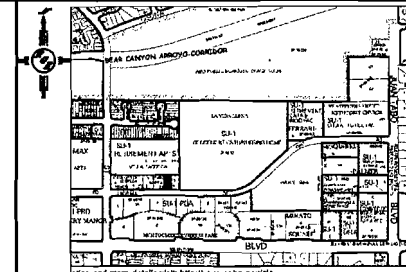


**PRIVATE DRAINAGE IMPROVEMENT IN PUBLIC ROW  
NOTICE TO CONTRACTORS (SPECIAL ORDER "SO-19")**

1. AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL DIAL "911" (OR 505-280-1900) FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
8. PRIOR TO POURING CONCRETE, CONTRACTOR SHALL NOTIFY THE STORM DRAIN INSPECTOR, 505-857-8074, TO INSPECT REINFORCEMENT.

APPROVAL	NAME:	DATE:
INSPECTOR		

**CAUTION:**  
EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.



**VICINITY MAP:** P-21-2  
**FIRM MAP:** FMS5001C144G

**LEGAL DESCRIPTION:**  
LOT #2, BLOCK 18, PRIMROSE POINTE UNIT 6  
CITY OF ALBUQUERQUE  
BERNALILLO COUNTY, NEW MEXICO

**NOTES:**  
1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

**LEGEND**

	EXISTING CONTOUR
	EXISTING INDEX CONTOUR
	PROPOSED CONTOUR
	PROPOSED INDEX CONTOUR
	LOT LINE
	CENTERLINE
	RIGHT-OF-WAY
	EXTENDED STEM WALL SEE ARCH PLANS FOR DETAILS
	PROPOSED ROCK FACE WALL
	EXISTING CURB AND GUTTER
	PROPOSED EDGE OF CONCRETE
	PROPOSED FLOWLINE
	EXISTING WALL

1 DAVID SOULE, HAVE PERSONALLY INSPECTED THE PROPERTY ON X-204-13. NO EARTHWORK HAS BEEN PERFORMED AND THE SITE IS CONSISTENT WITH THE TPO SHOWN.  
DAVID SOULE P.E. #14522 DATE

DESIGNER'S SEAL  DAVID SOULE P.E. #14522	LAGRIMA DE ORO PARKING LOT DR. HALTOM OFFICE	DESIGN BY DSE 8-17-18
	GRADING AND DRAINAGE PLAN	SHEET # 1 of 1
 <b>Rio Grande Engineering, Inc.</b> 1000 CENTRAL AVENUE ALBUQUERQUE, NEW MEXICO 87102 (505) 263-2800		JOB # 20000

# CITY OF ALBUQUERQUE



July 30, 2015

David Soule, P.E.  
Rio Grande Engineering  
PO Box 93924  
Albuquerque, New Mexico 87199

RE: **Haltom Dental**  
**10433 LaGrima Del Oro NE**  
**Grading and Drainage Plan**  
**Engineers Stamp Date 7/1/15 (F21D052)**

Dear Mr. Soule,

Based upon the information provided in your submittal received 7/2/15, this plan cannot be approved for Grading Permit and Paving Permit until the following comments are addressed.

- Provide build notes on the G&D plan.
- Provide the benchmark.
- Provide a date on the signature line/remove X-XX-13.
- Provide a curb cut in the Southeast corner of parking lot.
- Depress all landscaping areas.
- Provide spot elevations along swale.
- Provide invert at beginning of swale.
- Show location of wall in Bio Swale Detail.
- Extend sidewalk culvert 2 feet inside property line.

PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)

If you have any questions, please contact me at 924-3695 or Rudy Rael at 924-3977.

Sincerely,

Rita Harmon, P.E.  
Senior Engineer, Hydrology  
Planning Department

RR/RH  
C: File